

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-8, 11-18, 21-30, 33-40, 42, 55-62, and 65-72 are presently active in this case, Claims 1, 2, 14, 21, 24, 55, 56, and 65 having been amended and Claims 9, 10, 19, 20, 31, 41, 32, 43-54, 63, 64, 73, and 74 having been canceled without prejudice or disclaimer by way of the present Amendment.

In the outstanding Official Action, the drawings were objected to as failing to comply with 37 CFR 1.83(a) and 1.84(p)(5). The Official Action indicated that the drawings do not depict reference numeral "59." However, the Applicants note that Figure 2 depicts reference numeral "59" on the left-hand side thereof. Furthermore, the Official Action indicated that the subject matter of Claims 9, 12, 18, 40, and 72 are not shown in the drawings. Claim 9 has been canceled, thereby rendering the rejection of this claim moot. Claim 12 recites a rotating/tilting member that is adapted to couple to the furnace. This broadly recited subject matter is depicted, for example, in Figure 2 in which a tilting/rotating apparatus (262) is coupled to buckstay (59) of the furnace. Regarding Claims 18, 40, and 72, Figures 3 and 4 depict an embodiment of a locking mechanism (246), which is described in the specification on pages 6 and 7. Accordingly, the Applicants request the withdrawal of the objection to the drawings.

Claims 14-16 and 74 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Claim 14 has been amended to change "said at least one rotatable support" to "said at least one adjustment support," which has proper antecedent basis in Claim 14. Claim 74 has been canceled, thereby rendering the rejection of this claim moot. Accordingly, the Applicants request the withdrawal of the indefiniteness rejections.

Claims 1-6, 9, 10, 14, 15, 17, 18, 21, 24-28, 31, 32, 36, 37, 39, 40, 55-60, 63, 64, and 68-72 were rejected under 35 U.S.C. 102(b) as being anticipated by Legille (U.S. Patent No. 3,905,239). Claims 7, 8, 13, 16, 29, 30, 38, 42, 61, 62, and 70 were rejected under 35 U.S.C. 103(a) as being unpatentable over Legille. Claims 1, 11, 12, 19, 21, 23, 33-35, 55, 65-67, 73, 74 were rejected under 35 U.S.C. 102(b) as being anticipated by Jankkila (U.S. Patent No. 4,761,892). For the reasons discussed below, the Applicants request the withdrawal of the art rejections.

Claim 1 of the present application recites a furnace probe positioning measuring system comprising, among other features, a probe assembly including a translational member and a location sensing portion configured to adjust to a location of measurement within the furnace, where the location sensing portion is provided on an end of the translational member, and the location sensing portion has a telescoping portion with an adjustable length. Claim 21 recites a positioning measurement system comprising, among other features, a probe including a location sensing portion having a telescoping portion with an adjustable length, and at least one positioning assembly including a translational member, where the location sensing portion is provided on an end of the translational member. Claim 55 recites a furnace probe positioning measuring system comprising, among other features means for

probing locations within furnace including a translational member and a location sensing portion configured to adjust to a location of measurement within the furnace, where the location sensing portion is provided on an end of the translational member, and the location sensing portion has a telescoping portion with an adjustable length. As will be demonstrated below, the Legille and Jankkila references clearly do not meet each and every limitation of the independent claims.

The Legille reference describes a method and apparatus for scanning the surface of a charge of material in a shaft furnace in order to provide information as to the charging plane profile. The apparatus includes a gauge device which can be inserted into the furnace to a predetermined position, contact thereupon established with the charge surface and the device thereafter withdrawn from the furnace while maintaining contact with the surface and simultaneously measuring the degree of extension of the device into the furnace and the angle between the surface contacting portion of the device and the horizontal. The trailing gauge includes a horizontally movable gauge arm (6) and a swing arm (4).

The Legille reference does not include a location sensing portion having a telescoping portion with an adjustable length, and a translational member, where the location sensing portion is provided on an end of the translational member, as recited in Claims 1, 21, and 55 of the present application. While the gauge arm (6) of the Legille reference does translate, the swing arm (4) does not telescope, but rather rotates to various angular positions that are used to determine the charging plane profile. Accordingly, the Legille reference does not disclose all of the limitations recited in Claims 1, 21, and 55 of the present application.

The Jankkila reference describes an apparatus for measuring the length of the electrodes in an electric furnace. In this invention, a measuring rod is inserted into a furnace that feels the end of the electrode in the furnace, and thus the distance of the electrode located in the material bed is detected with respect to the furnace bottom. The apparatus includes a frame (1) provided with wheels, and a chain feeder (3) attached to the frame with articulations (2). The chain feeder (3) is furnished with holding guides (8 and 9) for the measuring rod (7).

The Jankkila reference does not include a location sensing portion having a telescoping portion with an adjustable length, and a translational member, where the location sensing portion is provided on an end of the translational member, as recited in Claims 1 and 55 of the present application. The measuring rod (7) of the Jankkila reference does not include a telescoping portion on an end thereof. Accordingly, the Jankkila reference does not disclose all of the limitations recited in Claims 1 and 55 of the present application.

Accordingly, the Applicants respectfully request the withdrawal of the anticipation rejections of Claims 1, 21, and 55.

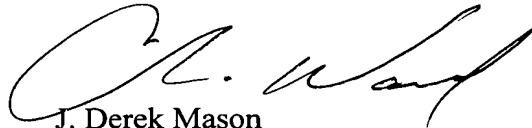
Claims 2-8, 11-18, 22-30, 33-40, 42, 55-62, and 65-72 are considered allowable for the reasons advanced for Claims 1, 21, and 55 from which they respectively depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed, taught, nor suggested by the applied references when those features are considered within the context of Claims 1, 21, and 55.

Application Serial No.: 10/717,661
Reply to Office Action dated June 17, 2004

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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